TES

Site: Herculaneum
ID# MOD006266373
Break: 1.0
Other:
4-19-01

A7/7

Attention: Miss Diane Huffman

Date: 4/19/01

Company: E.P.A. Region 7

Number of Pages: 1

Fax Number: 1913-551-7066

Voice Number: 1800-223-0425

From: John F. Weir Jr.

Company:

Fax Number: 636-475-7368

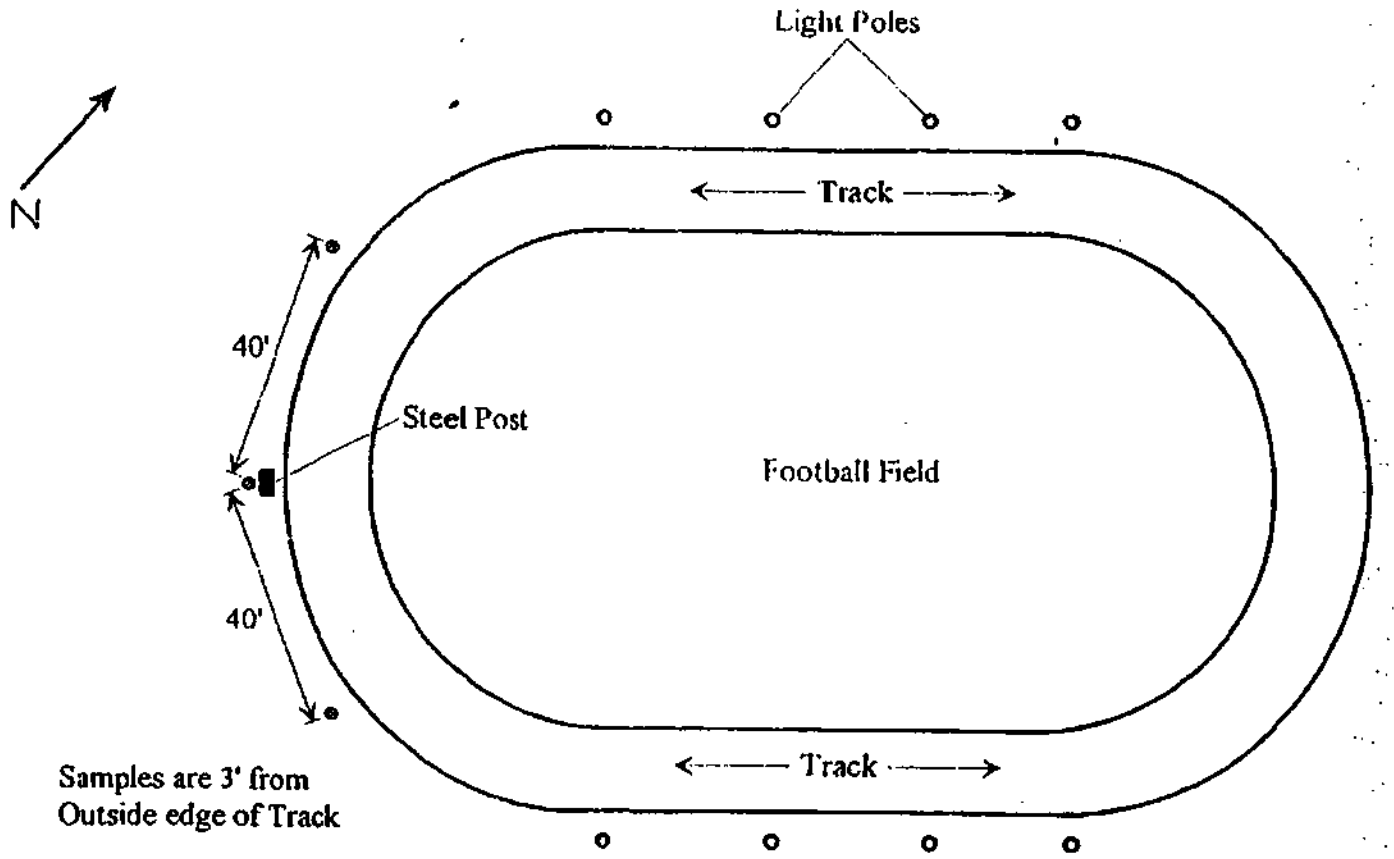
Voice Number: 636-475-7367



Subject: TO DIANE HUFFMAN, RE: DOE RUN/HERKY HIGH SCHOOL

Comments:

DIANE,
PLEASE FIND ENCLOSED FAX OF 17 PAGES IN TWO PARTS. I AM INTERESTED IN ANY CRITICAL DATE THAT WOULD SUGGEST WHETHER OR NOT IMMEDIATE ACTION IS WARRANTED HERE TO PREVENT CONTACT OR USE OF FIELD iWTH SUCH HIGH LEVELS OF CONCENTRATION.
PLEASE RSVP
RESPECTFULLY, JOHN WEIR




| | | |
|---|---|---|
| REACT Environmental Engineers<br>Project No. 7145.01 | Dunklin R-5 Public Schools<br>• Sample Location Map C | September 17, 1997<br>Not to Scale |

environmental engineers

1733 S. Vandeventer Avenue
St. Louis, MO 63110-2223
314-772-2326
314-772-6610 FAX
REACT@mo.net
800-325-1398 24 Hour

October 10, 1997
REACT Project No. 7145.01

Mr. Bill Whitmer
Superintendent, Dunklin R-5 Public Schools
P.O. Box 306
Herculaneum, MO 63048

Dear Mr. Whitmer:

This letter is to transmit REACT Environmental Engineers' report for the soil lead sampling conducted on September 17, 1997 at the Dunklin R-5 Public School District. REACT followed accepted protocol for the sampling activities conducted. The sample location methods used at both schools can be easily repeated for future lead level comparisons.

Thank you for choosing REACT to serve your environmental needs. Please call me at (314)772-2326 if I can be of further assistance to you.

Sincerely,

Henry Stremlau
Environmental Engineer

cc: Mr. Gary Walker, The Doe Run Company

# Soil Sampling for Lead at Dunklin R-5 Schools on September 17, 1997

## Dunklin R-5 Public School District
## Herculaneum, Missouri

REACT Project No. 7145.01

October 9, 1997

*prepared by:*
REACT Environmental Engineers
1733 South Vandeventer
St. Louis, MO 63110

# QUALITY CONTROL REPORT, ASSURANCE PLANS, AND LIMITS OF LIABILITY

Project Title: Soil Sampling for Lead at Dunklin R-5 Schools on September 17, 1997

Project Location: Dunklin R-5 Schools
Herculaneum, Missouri

REACT Project Number: 7145.01

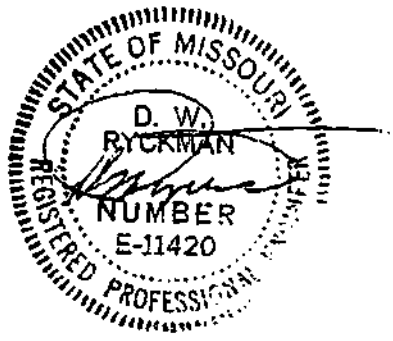
As part of DWRA/REACT's internal QA/QC practices and procedures, this document has been reviewed and approved by the following:

Henry Stremlau — Date: 10/9/97
Environmental Engineer/ Project Manager

D.W. (Rick) Ryckman, P.E., Sc.D., D.E.E. — Date: 10/14/97
Principal Environmental Engineer

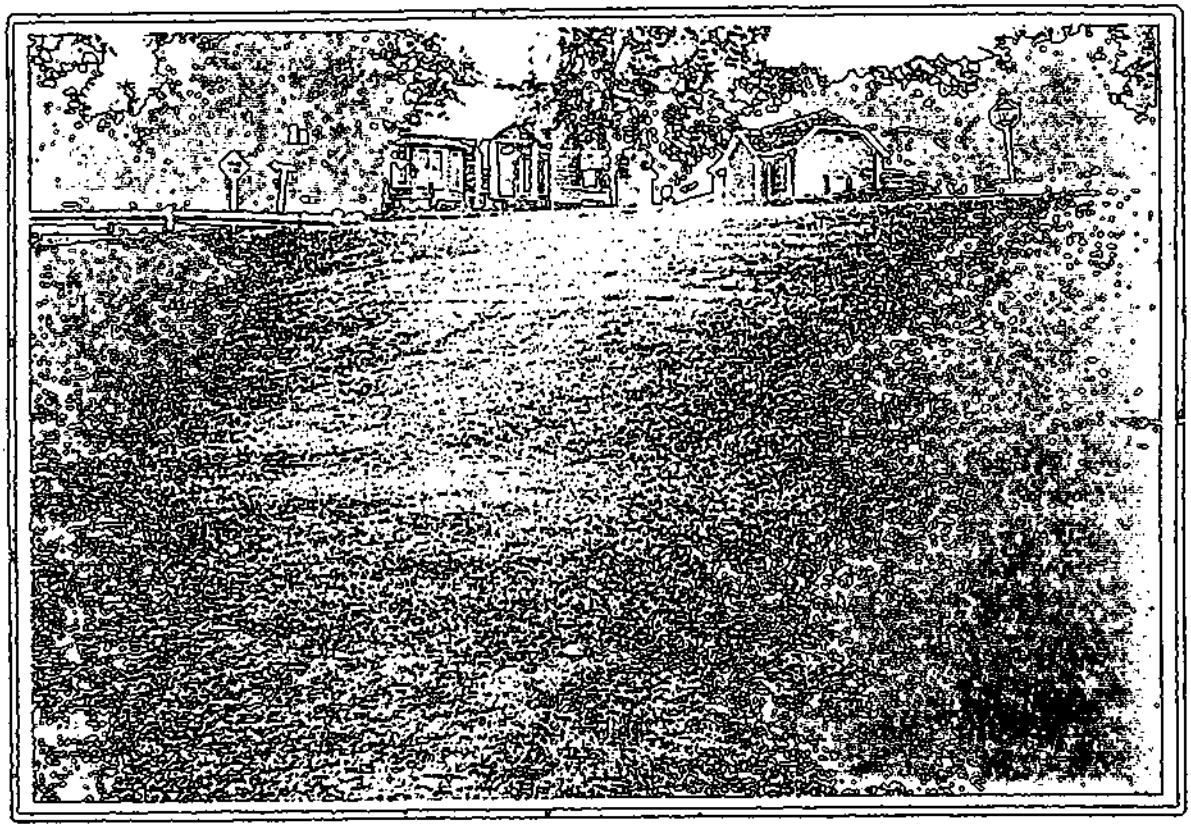
**LIMITATIONS OF LIABILITY.** Our liability, with respect to our findings and conclusions, is limited to the scope of our environmental services as set forth herein. We assume no liability under this report except in the case of our gross negligence, willful malfeasance or willful nonfeasance. We make no representations as to areas not sampled, techniques used and samples not tested.

The above signed environmental professionals believe good environmental engineering practices were employed during this project

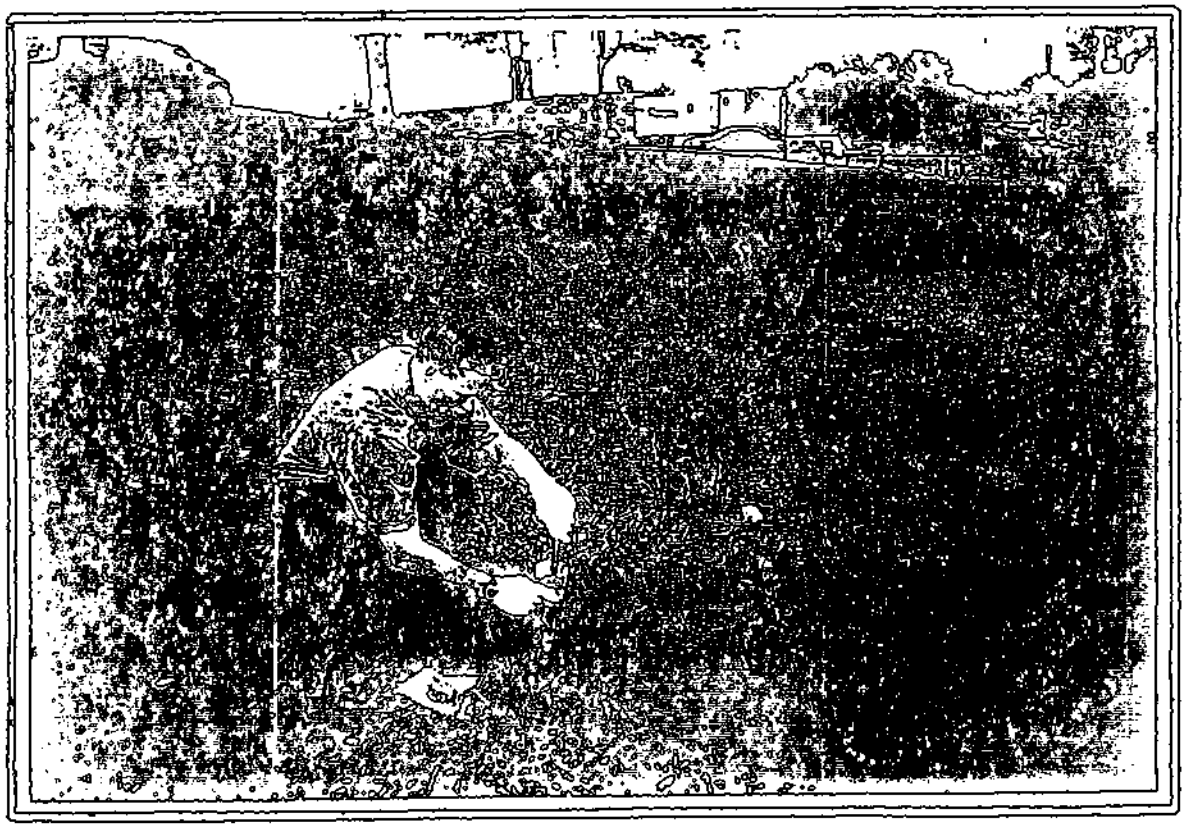


# Appendix B

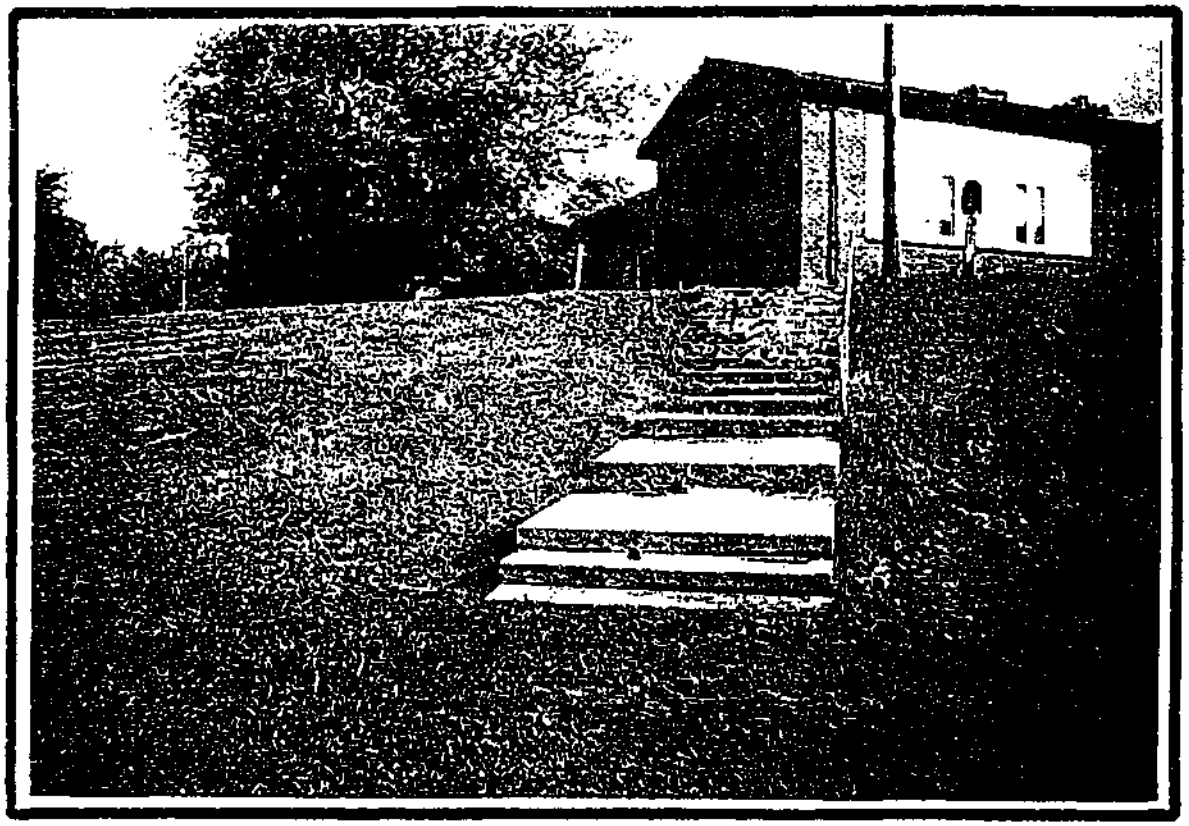
## Photo Log



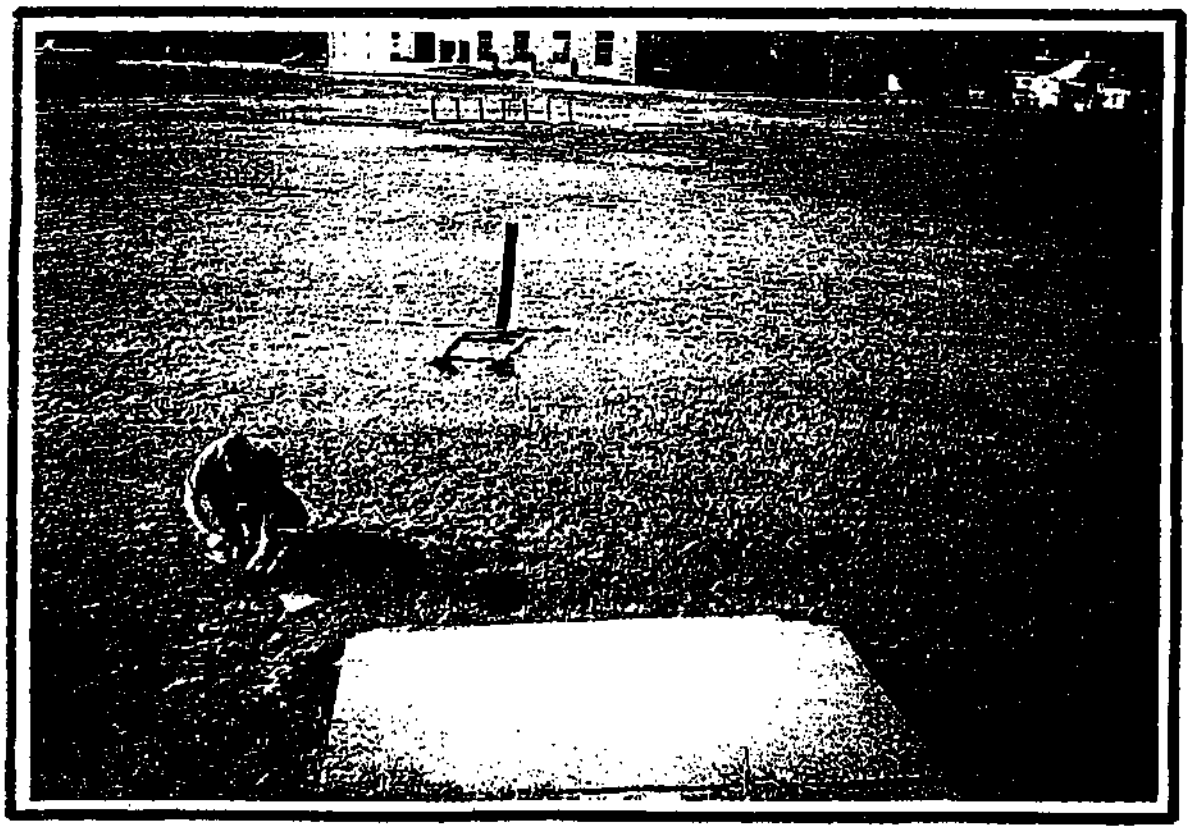
Sampling locations at the playground.



Collection of eight ounce soil sample.

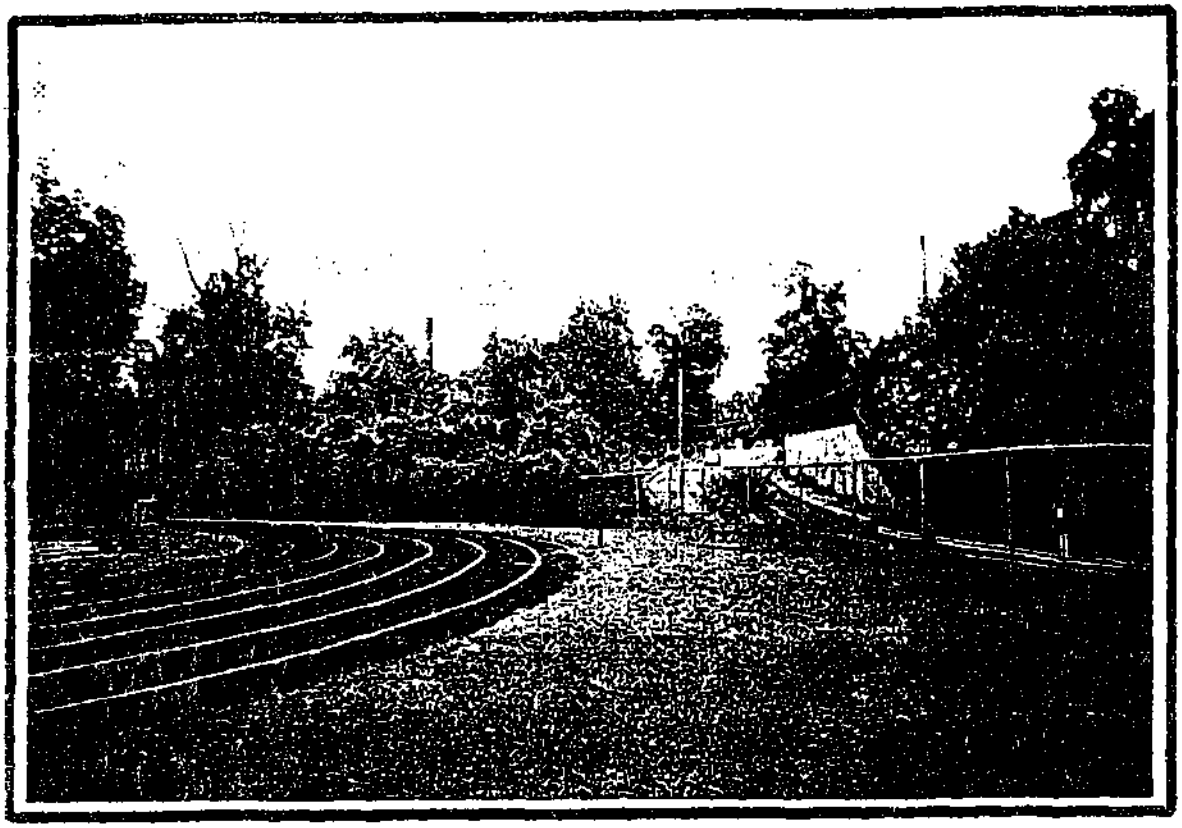


Sampling locations at the steps located south of the elementary school

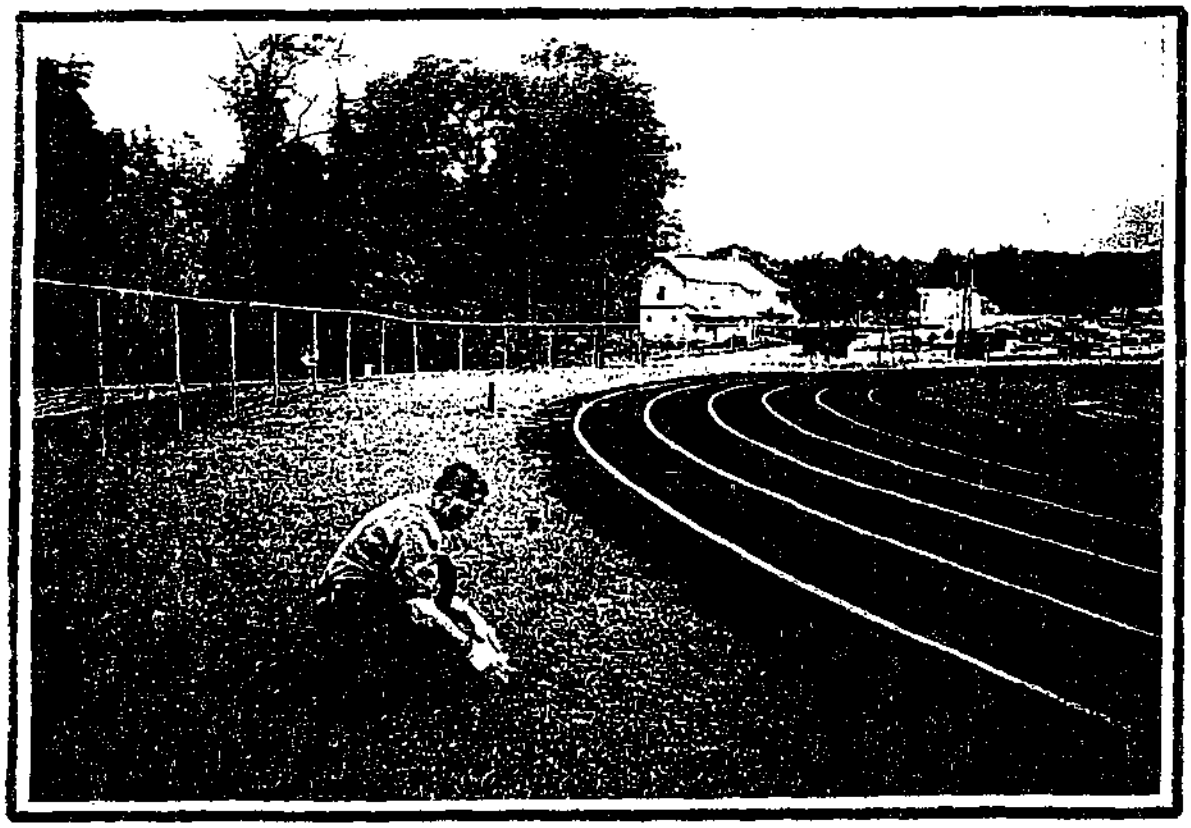


Collection of eight ounce soil sample.

## Table of Contents



Sampling locations on the east side of the high school track.



Collection of eight ounce soil sample.

## I. Authorization

REACT Environmental Engineers (REACT) was retained by The Doe Run Company (Doe Run) to provide soil sampling services at two public schools in the city of Herculaneum, Missouri in the Dunklin R-5 School District. The school grounds were to be sampled in locations where children would be most likely come in contact with the soil. Mr. Bill Whitmer, Superintendent of Dunklin R-5 Public Schools, chose three separate sampling sites. Two of the samples were collected at the Elementary School and the third was obtained at the high school track. REACT Project Engineer, David Boles, was accompanied by Mr. Gary Walker of Doe Run to locate and discuss the best repeatable method for sample collection at these locations.

## II. Weather

The weather on September 17, 1997 was cloudy with light rain in the morning. The rain did not hamper the collection of samples. Temperatures were in the mid-70's (Fahrenheit).

## III. Sampling Locations

### *A. Sampling Locations for the Playground*

The playground was sampled in three locations and combined to make a single composite sample. The sample locations were spotted by measuring five feet northwest and eight feet southwest from the easterly most corner of the playground's boundary. The locations were marked with survey flags just inside of the landscape timbers that surround the playground (Sample Location Map A).

### *B. Sampling Locations for the Elementary Walkway*

A composite sample was collected from the toe of the slope located at the bottom of the steps just south of the elementary school. There is a natural drainage pathway that runs east from under Joachim Road and across the playing field located on the south side of the elementary school. The bottom of the steps leading to the playing field end at the natural drainage pathway. The sample locations were spotted with survey flags three feet from the bottom step on the grass walkway (Sample Location Map B).

### *C. Sampling Locations for the Track Area*

The perimeter of the track at the high school was sampled in three locations and combined to make a single composite sample. A one foot steel post located at the center of the outer west edge of the track was used as a permanent reference point. Three sample locations were spotted with survey flags three feet from the outer edge of the track. The first location was spotted center, behind the steel post, and the other two locations were spotted forty (40) feet either direction of the post (Sample Location Map C).

## IV. Sampling Methods

Samples were collected as follows for all sampling sites: A stainless steel spade was used to obtain approximately eight ounces of soil from immediately around the flag, then placed into a ziplock bag. The samples were taken from the ground surface to six inches in depth. The bags of soil were then emptied into a stainless steel tray and thoroughly mixed with a stainless steel spoon. Finally, approximately 150 grams of composite soil was placed into each of two, four-ounce sample containers. One sample was sent to the laboratory for analysis and the other was retained by REACT as a duplicate sample

## V. Laboratory Results

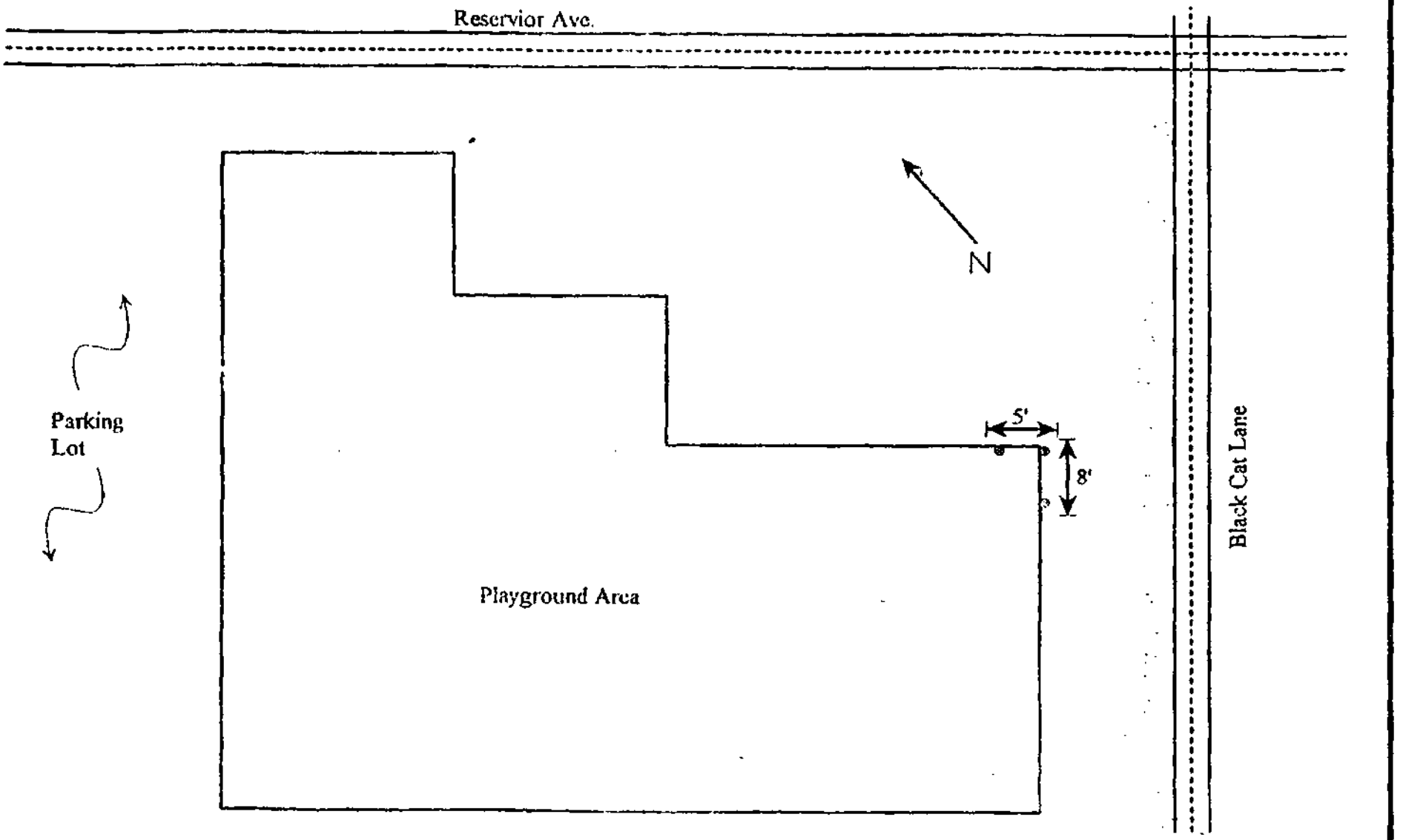
Total lead results as provided by the analytical laboratory are given in Appendix C. These results show total lead at the elementary school playground to be 609 mg/kg, and at the elementary school steps to be 205 mg/kg. At the high school track, soil lead tested at 1,813 mg/kg for the composite sample taken along the track's western edge.

## VI. Summary

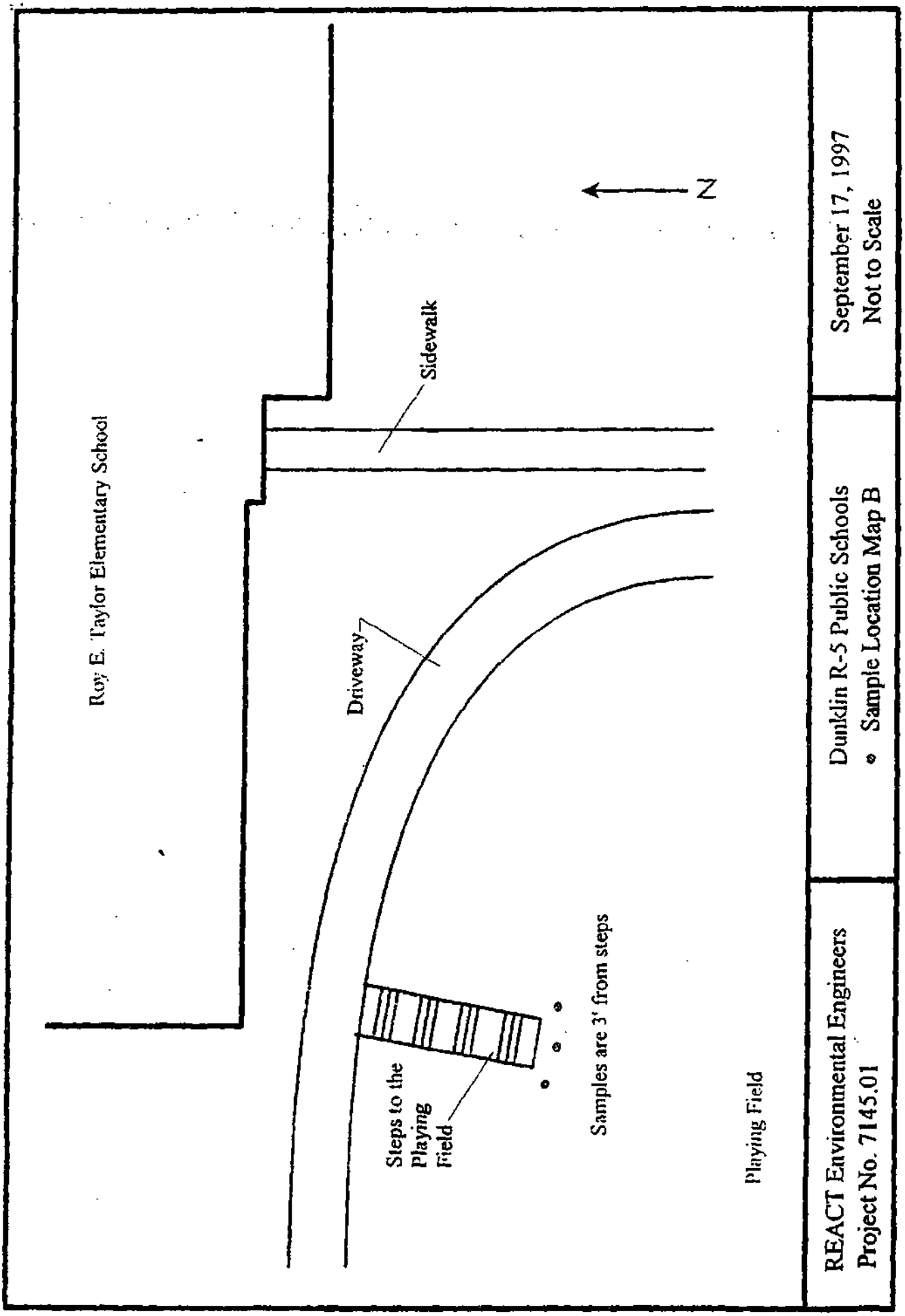
The soil lead levels from all samples taken are within expected ranges with respect to their geographical locations. All samples were collected using easily reproducible methods as previously described. However, the exact results from additional samples collected at any of the locations may vary somewhat with every composite sample obtained due to localized variability of lead levels within the soil matrix.

# Appendix A

## Sample Location Sketches




| | | |
|---|---|---|
| REACT Environmental Engineers<br>Project No. 7145.01 | Dunklin R-5 Public Schools<br>• Sample Location Map A | September 17, 1997<br>Not to Scale |

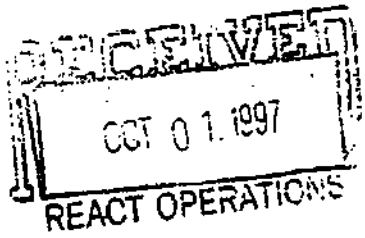

Roy E. Taylor Elementary School
Sidewalk
N
Driveway
Steps to the Playing Field
Samples are 3' from steps
Playing Field
REACT Environmental Engineers
Project No. 7145.01
Dunklin R-5 Public Schools
• Sample Location Map B
September 17, 1997
Not to Scale

# Appendix C

## Sample Results

**ENVIRONMETRICS, INC.**
11401 Moog Drive
St. Louis, MO 63146
(314) 432-0550

September 29, 1997




React
1733 South Vandeventer
St. Louis, Mo. 63110

Attn: Henry Stremlau

Enclosed you will find analytical reports for the samples described below:

Date Received: 09/17/97
Chain of Custody Number: 30775
Environmetrics Laboratory Number: 9709/193

I have reviewed the data generated by the laboratory and have found the data to conform to the applicable methods and QC criteria. If you have any questions, please feel free to call me at (314) 432-0550.

Sincerely,

Elizabeth Curtright

Elizabeth Curtright
Project Manager

Enclosure: Invoice Number 42069

**ENVIRONMETRICS, INC.**
11401 Moog Drive
St. Louis, MO 63146
(314) 432-0550

React
1733 South Vandeventer
St. Louis, Mo 63110

ATTN: Henry Stremlau

INVOICE: 42069
PO: ---
PROJECT #: ---

ANALYSIS RESULTS

TOTAL LEAD
METHOD SW-846 6010A

PAGE ONE

| LAB NO. | IDENTIFICATION | RESULTS | |
|---|---|---|---|
| 9709/193-001 | STEPS-9-17 | 205 | mg/Kg |
| 9709/193-002 | PLAYG-9-17 | 609 | mg/Kg |
| 9709/193-003 | TRACKS-9-17 | 1813 | mg/Kg |

DATE COLLECTED: 09/17/97
DATE RECEIVED: 09/17/97
DATE ANALYZED: 09/24/97
ANALYST: K.E.

B - Report value is greater than the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL)